

Appl. Serial No. 10/826,094
Amendment dated November 28, 2005
Reply to Office Action of September 28, 2005

Confirmation No. 9255

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1. (Currently Amended) A composition for inhibiting bacterial biofilms on devices comprising ~~a composition selected from the group consisting of:~~

- ~~(a) a thiol-specific reagent~~ an N-substituted maleimide and a cationic polypeptide;
- ~~(b) a thiol-specific reagent and an iron-sequestering glycoprotein; and~~
- ~~(c) a thiol-specific reagent and a quaternary ammonium compound.~~

Claim 2. (Currently Amended) The composition[s] of claim 1, wherein the N-substituted maleimide ~~thiol-specific reagent~~ is between about 12.5 mg/L and about 100 mg/L of the composition.

Claim 3. (Currently Amended) The composition[s] of claim 1, wherein the cationic polypeptide is between about 12.5 mg/L and about 100 mg/L of the composition.

Claim 4. (Cancelled)

Claim 5. (Original) The composition of claim 1, wherein the composition is effective against biofilms produced by gram-negative bacterial species selected from the group consisting of *Escherichia coli*, *Proteus mirabilis*, *Klebsiella pneumoniae* and *Pseudomonas aeruginosa*.

Claim 6. (Original) The composition of claim 1, wherein the composition is effective against biofilms produced by gram-positive bacterial species selected from the group consisting of *Enterococcus faecalis* and *Staphylococcus epidermidis*.

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Claim 7. (Currently Amended) The composition of claim 1, wherein the N-substituted maleimide thiol-specific reagent is selected from a group consisting of N-ethylmaleimide (NEM), 5,5-dithiobis-(2-nitrobenzoic acid)(DTNB), 2-nitro-5-thiocyanobenzoic acid (NTCB), p-hydroxymercuribenzoic acid (pHMB), iodoacetamide (IA), N-phenylmaleimide (PheM), N-(1-pyrenyl) maleimide (PyrM), naphthalene-1,5-dimaleimide (NDM), N,N'-(1,2-phenylene) dimaleimide (oPDM), N,N'-1,4-phenylene dimaleimide (pPDM), N,N'-1,3-phenylene dimaleimide (mPDM), 1,1-(methylenedi-4,1-phenylene)bismaleimide(BM), 4-(N-maleimido) phenyltrimethylammonium (MPTM), and N,N'-bis(3-maleimidopropionyl)-2-hydroxy-1,3-propanediamine (BMP), ~~p-chloromercuribenzenesulphonic acid and thiosulfonates.~~

Claim 8. (Currently Amended) The composition of claim 1, wherein the cationic polypeptide is selected from a group consisting of protamine sulfate, ~~polylysine, defensin, lactoperoxidase and lysozyme.~~

Claim 9. (Cancelled).

Claim 10. (Currently Amended) The composition of claim 1, further comprising one or more ingredients selected from the group consisting of: an organic solvent, a binding or bonding, or coupling agent, a surfactant, a quaternary ammonium compound, and an antibiotic.

Claim 11. (Currently Amended) The composition of claim 1, wherein the N-substituted maleimide thiol-specific reagent is N,N'-(1,2-phenylene) dimaleimide or N-(1-pyrenyl) maleimide and the cationic polypeptide is protamine sulfate.

Claim 12. (Original) The compositions of claim 11, wherein the N,N'-(1,2-phenylene) dimaleimide or N-(1-pyrenyl) maleimide is present as about 0.1 mg/ml and the protamine sulfate is present as about 0.1 mg/ml.

Claims 13-14. (cancelled).

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Claim 15. (Original) The composition of claim 1, further comprising dimethyl sulfoxide or methanol.

Claim 16. (Withdrawn) A method of preparing a device comprising treating at least one surface of the device with the composition of claim 1.

Claim 17. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 16, wherein the composition comprises an effective amount of N,N'-(1,2-phenylene) dimaleimide or N-(1-pyrenyl) maleimide and protamine sulfate.

Claim 18. (Cancelled)

Claim 19. (Withdrawn) The method of preparing a device comprising coating a device with the composition of claim 1.

Claim 20. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 19, wherein the composition comprises an effective amount of N,N'-(1,2-phenylene) dimaleimide or N-(1-pyrenyl) maleimide and protamine sulfate.

Claims 21-23. (Cancelled)

Claim 24. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 16, wherein the composition further comprises hydrogel.

Claim 25. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 16, further comprising coating the device with a hydrogel selected from the group consisting of polyvinylpyrrolidone-hydrogel, polyvinyl alcohol-hydrogel and polyethylene glycol-hydrogel.

Claim 26. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 16, wherein the device is a medical device.

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Claim 27. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 26, wherein the device is a catheter.

Claim 28. (withdrawn) The method of claim 27, wherein the catheter is an indwelling catheter.

Claim 29. (withdrawn) The method of claim 28, wherein the indwelling catheter is selected from a group consisting of a urinary catheter, a peritoneal catheter, an umbilical catheter, a suction catheter and a mucous extraction catheter.

Claim 30. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 16, wherein the device is selected from the group consisting of catheters, contact lenses, intrauterine devices, dental prostheses, orthodontic devices, stomach tubes, endotracheal tubes, dental water lines, compression bandages, tissue dressings, wound dressings, surgical tapes, occlusive patches and external prostheses.

Claim 31. (Currently Amended and Withdrawn) The method ~~as claimed in~~ of claim 16, wherein the device selected from the group consisting of pipes, heat exchangers and computer chips.

Claim 32. (withdrawn) The method of preparing a device comprising incorporating the composition of claim 1 into polymers, which are used to form the device.

Claim 33. (withdrawn) The method of preparing a device comprising impregnating the composition of claim 1 into the device.

Claims 34-35. (Cancelled).